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a processor receiving a signal from the electronic compass, the processor determining when the at least one magnetic sensor is operating in the first output mode, and when the at least one magnetic sensor is operating in the second output mode, based on the signal from the electronic compass;

wherein the processor determines a position of the first portion relative to the second portion based on the signal from the electronic compass; and

wherein when the at least one magnetic sensor is operating in the first output mode, the processor determines a compass direction based on the signal.

2. The portable information device of claim 1, wherein the first output mode is a non-saturated sensor output mode and the second output mode is a saturated sensor output mode.

3. The portable information device of claim 1, wherein the electronic compass comprises a first axis magnetic sensor and a second axis magnetic sensor.

4. The electronic compass of claim 3, wherein the first magnetic sensor is an x-axis sensor and the second magnetic sensor is a y-axis sensor.

5. The portable information device of claim 1, wherein the electronic compass comprises a first axis magnetic sensor, a second axis magnetic sensor and a third axis magnetic sensor.

6. The electronic compass of claim 5, wherein the first magnetic sensor is an x-axis sensor, the second magnetic sensor is a y-axis sensor and the third magnetic sensor is a z-axis sensor.

7. The portable information device of claim 1, wherein when the at least one magnetic sensor is operating in the second output mode, the processor deactivates at least part of the portable information device.

8. The portable information device of claim 1, further comprising at least one comparator operable to receive a signal from the at least one magnetic sensor when a presence of the magnet is detected by the at least one magnetic sensor, whereby the comparator digitizes a voltage signal from the at least one magnetic sensor.

9. A portable information device comprising:

- a first portion having a magnet; and
- a second portion having an electronic compass that includes at least one magnetic sensor, wherein the at least one magnetic sensor is responsive to the magnet; and

wherein the portable information device outputs compass heading information based on an output of at least one magnetic sensor when the first portion is at a first position relative to the second portion; and

wherein at least a part of the portable information device is deactivated based on the output of at least one magnetic sensor when the first portion is at a second position relative to the second portion.

10. The portable information device of claim 9, wherein the second portion is moveable with respect to the first portion.

11. The portable information device of claim 9, wherein the electronic compass comprises a first axis magnetic sensor and a second axis magnetic sensor.

12. The electronic compass of claim 11, wherein the first axis magnetic sensor is an x-axis sensor and the second axis magnetic sensor is a y-axis sensor.

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13. The portable information device of claim 9, wherein the electronic compass comprises a first axis magnetic sensor, a second axis magnetic sensor, and a third axis magnetic sensor.

14. The electronic compass of claim 13, wherein the first axis magnetic sensor is an x-axis sensor, the second axis magnetic sensor is a y-axis sensor, and the third axis magnetic sensor is a z-axis sensor.

15. The portable information device of claim 9, further comprising a processor operable to receive a signal from the electronic compass to determine a compass direction.

16. The portable information device of claim 9, wherein a switch removes power to circuits contained by the portable information device based on the output of the at least one magnetic sensor when an output signal from the at least one magnetic sensor indicates that the least one magnetic sensor is saturated by the magnet.

17. A method for compassing and switching in a portable information device, comprising:

- receiving a first signal from a magnetic sensor when the magnetic sensor is within a first distance from a permanent magnet, wherein the first signal is associated primarily with a field strength of the permanent magnet, wherein the magnetic sensor is located at a first portion of the portable information device, wherein the permanent magnet is located at a second portion of the portable information device, and wherein the first and second portions are movable with respect to one another;

- receiving a second signal from the magnetic sensor when the magnetic sensor is further than the first distance from the permanent magnet, wherein the second signal is associated primarily with a field strength of the earth;
- determining a compass heading from the second signal; and

- deactivating at least part of the portable information device based on receiving the first signal from the magnetic sensor.

18. The method of claim 17, wherein the first signal is in a first range of magnetic field strengths detectable by the magnetic sensor;

- the second signal is in a second range of magnetic field strengths detectable by the magnetic sensor; and
- the second range is greater than the first range.

19. The method of claim 17, wherein the magnetic sensor is a two-axis magnetic sensor.

20. The method of claim 17, wherein the magnetic sensor is a three-axis magnetic sensor.

21. The method of claim 17, wherein the portable information device is a cell phone, having a keypad panel and a display panel, and wherein deactivating at least part of the portable information device includes removing power from a display on the display panel.

22. The method of claim 17 wherein the portable information device is a GPS receiver, wherein the first and second portions are selected from a cover panel and a display panel, and wherein the switching function includes removing power from a display on the display panel.

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